

AGASYAN, E.O.

Pulse stretcher with logarithmic characteristics. Prib. i tekh.  
eksp. 8 no.6:103-105 N-D '63. (MIRA 17:6)

1. Fizicheskiy institut AN ArmSSR.

ACCESSION NR: AP4010027

S/0022/63/016/006/0125/0130

AUTHORS: Agasyan, E. O.; Marikyan, G. A.

TITLE: Investigations of ionization fluctuation in proportional low pressure counters

SOURCE: AN ArmSSR. Izvestiya. Ser. fiz.-matem. nauk, v. 16, no. 6, 1963, 125-130

TOPIC TAGS: ionization fluctuation, pressure counter, mu meson, cosmic ray, Geiger counter, propane gas, proportional counter

ABSTRACT: The ionization fluctuation curve width has been studied as a function of mixture parameters in a proportional counter for high-energy  $\mu$  - mesons of cosmic origin. The apparatus consists of a Geiger counter telescope, two proportional counters, and electronic instruments to measure the pulse amplitude and  $\mu$ -meson trajectory through the telescope. The counter is filled with a mixture of 25% argon and 75% methane at 40 cm Hg pressure. The measured fluctuation width was found to be 48% ( $\pm 2.5\%$ ) compared to a 31% estimate from the theory of L. Landau (On the Energy Loss of Fast Particles by Ionization. Jour. Phys. (USSR) 8, 201,

Card 1/2

ACCESSION NR: AP4010027

1944). Measurements were also obtained in pure propane at 1.0, 0.5, and 0.25 atm pressure with 42%, 49% and 65% fluctuation widths respectively. It is shown that the fluctuation width decreases as the gas pressure in the counter increases. Further measurements at higher pressures are deemed necessary. "The authors are thankful to V. M. Kharitonov for his interest in this work." Orig. art. has: 6 figures.

ASSOCIATION: none

SUBMITTED: 11Jan63

DATE ACQ: 03Feb64

ENCL: 00

SUB CODE: NP

NO REF SOV: 005

OTHER: 008

Card 2/2

AGASYAN, E.O.; MARIKYAN, G.A.

Ionization fluctuations in low-pressure proportional counters.  
Izv. AN Arm. SSR. Ser. fiz.-mat. nauk 16 no.6:125-130 '63.  
(MIRA 1788)

AGASYAN, I.---

Gas-turbine units with free-piston gas producers. Prom. Arm. 4  
no. 3:32-36 Mr '61. (MIRA 14:6)

1. Armyanskiy filial Vsesoyuznogo nauchno-issledovatel'skogo  
instituta elektromekhaniki  
(Gas turbines)

AGASYAN, L.A.

Internal regulation of free-piston engines. Izv. AN Arm. SSR.  
Ser. tekhn. nauk 16 no.5:41-50 '63. (MIRA 16:12)

1. Armyanskiy filial Vsesoyuznogo nauchno-issledovatel'skogo  
instituta elektromekhaniki.

L 57845-55

ACCESSION NR: AP5018707

UR 73/64/017/005/0043/0050

AUTHOR: Aganyan, L. A.

TITLE: Regulation of a gas-turbine electric generator with a free-piston  
motor

SOURCE: AN Arm SSR. Izvestiya. Seriya tekhnicheskikh nauk, v. 17, no. 5, 1964,  
43-50

TOPIC TAGS: automatic control, automatic control system, electric power  
engineering, gas turbine engine, thermoelectric generator, gasoline engine

ABSTRACT: The task of the control system is to assure stability of operation  
of a free-piston gas generator with a turbine with a wide range of variation  
of the load of the installation. The present article proposes a simple method

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L 57845-65  
ACCESSION NR: AP5018707

thus corresponds to a specific feeding of fuel to the cylinder of the gas generator. The internal control is accomplished by a pulse from a safety device and a gate valve to a pressure regulator switch which stops the



Orig. art. has: 3 figures, 11 formulas.

ASSOCIATION: Armyanskiy filial VNIIEI (Armenian Branch, VNIIEI)

SUBMITTED: EE, 1E

AMB CODE: EE, 1E

NR REF SOV: 007

OTHER: 000

JPRS

Cord 2/2

S/075/62/017/005/004/007  
1033/1233

AUTHORS: Golovina, A.P., Alimarin, I.P., Bozhevol'nov, Ye. A.  
and Agasyan, L.B.

TITLE: Datiscine - a new fluorimetric reagent for zirconium

PERIODICAL: Zhurnal analiticheskoy khimii, v.17, no. 5, 1962,  
591-594

TEXT: Datiscine (3,5,7,2' - tetraoxyflavone glucoside)  
produces with a number of cations soluble compounds which fluo-  
resce upon irradiation with ultraviolet rays. In the case of  
Zr maximal fluorescence is observed in a 6 N HCl medium at 520 m $\mu$   
upon irradiation at 388 m $\mu$ . A 100 fold excess of reagent is  
permissible. Intensity of fluorescence reaches a constant value

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S/075/62/017/005/004/007  
I033/I233

Datiscine - a new ....

after 15-20 min. It decreases with increase of ethanol concentration. Intensity is proportional to Zr concentration in the range of 0.005 - 3  $\mu$ l. This makes datiscine a most sensitive reagent for Zr. In the 1.5 - 6 N HCl acidity range there is no interference from any amount of Mg and Zn, 100,000-fold excess of Al and 100-fold excesses of Ag, Cd, Mn(II), Cu(II), Pb, Hg(II), Be, Co(II), In, Cr(III), Fe(II), Ta(V), V(V), Ni(II), Nb(V), W(VI), Y, U(VI), Ce(III), and La. In 6 N HCl, 10-fold excesses of Fe(III), Mo(VI), Ti(VI), Sb(V), Th and Ga do not interfere. This method was used for determination of Zr in aluminum and magnesium alloys. There are 2 figures and 4 tables.

Card 2/3

8/075/62/017/005/004/007  
1053/1233

Datiscine - a new...

ASSOCIATION: Moskovskiy gosudarstvenny universitet im. M.V. Lomonosova i  
Vsesoyuznyy nauchno- issledovatel'skiy institut khimicheskikh  
reaktivov i osobo chistyykh khimicheskikh veshchestv (Moscow State  
University im M.V. Lomonosov and All-Union Scientific Research Institute  
of Chemical Reagents and High-Purity Chemical Substances) Moscow

SUBMITTED: June 28, 1961

Card 3/3

AOAS'YAN, M., inzh.-podpolkovnik.

More attention to technical motion pictures. Voen. svyaz. 16 no.5:  
30 My '58. (MIRA 11:5)

(Motion pictures in military education)

USSR/Phys  
Magnetostriction  
Invar

Nov/Dec 1947

"Temperature Dependence of the Magnetostriction of Invar Alloys,"  
K. P. Belov, O. N. Agasyan, Sci Res Inst Phys, Moscow State U, 6 pp

"Izv Akad Nauk SSSR, Ser Fiz" Vol XI, No 6

Invar, elinvar, kovar, and similar alloys have anomalies of their volume and elastic properties with very complex dependence upon temperature. According to present hypotheses, the nature of these anomalies is clearly connected with the ferromagnetism of these alloys, and primarily determined by character of flow of the ferromagnetostriction phenomena. This study of magnetostriction of these alloys and especially the dependence upon temperature is of interest since it makes possible determination of the nature of the anomalous properties of Invar-type alloys.

PA 57T81

AGASYAN, O.N. ENGINEER

CAND TECH SCI

Dissertation: "Anomaly of the Modulus of Elasticity of Invar and Elinvar Types of Alloy

28 October 49

Central Sci Res Inst of Technology and Machine Building-"TsNITMASH."

SO Vecheryaya Moskva  
Sum 71

SSSR/Metals - Alloys, Properties

21 Oct 51

"On the Nature of Elastic Anomalies in Alloys of  
Iron and Elinvar Types," K. P. Belov, O. N.

Agasyan, Sci Res Inst of Phys, Moscow State U  
Ismeni M. V. Lomonosov

"Dok Ak Nauk SSSR" Vol LXXX, No 6, pp 861-883

Reviews attempts to explain elastic anomalies by  
mechanostriktion and attributes them to same ferro-  
magnetic volumetric effects which cause anomalies  
of thermal expansion and density. Discusses temp

217745

dependence of elasticity modulus and develops  
formula expressing relation between temp coeff of  
elasticity modulus and coeff of thermal expansion.  
Submitted by Acad A. F. Ioffe 17 Aug 51.

217745

AGASYAN, O. N.



AGASYAN, O. N.

Magnetostriction and mechanostriction properties of invar and  
elinvar type alloys. Uch. zap. Mosk. un. no.162:151-161 '52.

(MIRA 8:7)

(Nickel-iron alloys--Magnetic properties) (Magneto-  
striction)

AGASYAN, P. K.

Agasyan, P.K. "Determination of lead, barium and sulfate ions by potentiometric titration," report I, Vestnik Mosk. un-ta, 1948, No. 9, p. 75-80

SO: U-2888, Letopis Zhurnal'nykh State, No. 1, 1949

AGASYAN, P. K.

Chemistry Abst.  
Vol. 48 No. 5  
Mar. 10, 1954  
Analytical Chemistry

② 4

Potentiometric determination of lead and sulfate ions.  
H. P. K. Agasyan. *Vestnik Moskov. Univ.* 8, No. 8, Ser. Fiz.-Mat. i Estestven. Nauk No. 5, 121-4 (1953); cf. *ibid.* No. 5, Ser. No. 3, 65 (1953).—A rapid and fairly accurate detn. of  $\text{SO}_4^{2-}$  in a wide range of concn. was developed. It is based on potentiometric titration with  $\text{K}_4\text{Fe}(\text{CN})_6$  of the sulfate soln. to which is added a known amt. of standard  $\text{Pb}(\text{NO}_3)_2$  soln. The ferrocyanide titration thus titrates the excess Pb ions present and the difference between the amt. of Pb added and that found by this titration gives the measure of Pb bound as  $\text{PbSO}_4$ . Addn. of  $\text{EtOH}$  to the soln. gives better results by lessening the soly. of  $\text{PbSO}_4$ . The removal of the ppt. before titration does not affect the results but leads to a larger potential break at the end point. Acidic solns. usually give relatively poorer results than neutral ones, with errors of 0.0-0.7%. Aq. solns. give satisfactory results only when the excess of Pb is small. The presence of  $\text{KNO}_3$ ,  $\text{NaNO}_3$ , or  $\text{AcONa}$  causes somewhat high results (0.2-0.5%). G. M. Kosolapoff.

AGASYAN, P.K.

Potentiometric determination of lead and sulfate ions. Vent. Mosk. un. 8  
no. 5:65-68 My '53. (MLBA 6:8)

1. Kafedra analiticheskoy khimii.  
(Potentiometer) (Lead) (Sulfates)

CHI ✓Coulometric titration ~~by the American Chemical Society~~  
22, No. 1, 1970 - ~~Revised with alternative bibliography~~  
G. M. Kozlovskii

MA 224

AGASYAN, P.K., kandidat khimicheskikh nauk.

~~Mercury and amalgams in electrochemical methods of analysis~~ by M.T. Kozlovskii. Reviewed by P.K. Agasian. Zav. lab. 23 no.3:381-382 '57.  
(Electrochemical analysis) (Mercury) (Amalgams)  
(Kozlovskii, M.T.)

AUTHOR: Agasyan, P. K.

SOV/156-58-2-26/48

TITLE: Determination of Small Quantities of Indium in the Presence of Zinc (Opredeleniye malykh kolichestv indiya v prisutstvii tsinka)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 2, pp. 308-313 (USSR)

ABSTRACT: The most effective methods of determining indium are the spectral-, polarographic- and photometrical ones. Usually, indium is determined by weighing as  $\text{In}_2\text{O}_3$ ,  $\text{In}_2\text{S}_3$ , hydroxiquinolates, orthophosphate, diethyl-dithiocarbamate by means of electrolysis and the like (Refs 1-9). Further methods (Refs 6, 10-20) of titration are mentioned. The author investigated the possibility of a micro-potentiometric determination of small quantities by means of ferrocyanogen by way of compensation as referred to in the title. A modified combined micro-electrode developed by Frid (Ref 21) and the micro-buret developed by Shilov were used for this purpose. Figure 1 shows that the duration of the occurrence of an equilibrium potential increases during the titration according to the decreasing indium concentration in the solution

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SOV/156-58-2-26/48

Determination of Small Quantities of Indium in the Presence of Zinc

After a 3 minutes agitation the potential practically attains its constant value. It results from table 1 that the deposit takes place at a ratio of  $\text{In}^{3+} : [\text{Fe}(\text{CN})_6]^{4-} = 5 : 4$ ; its composition corresponds to formula  $\text{KIn}_5[\text{Fe}(\text{CN})_6]_4$  (in accordance with Refs 10, 12). The titration of different micro quantities of  $\text{In}^{3+}$  also confirms the obtained formula. The author draws the following conclusions from the results obtained: 1) The optimum conditions of micro-potentiometric titration of indium by potassium-ferrocyanogen are the following: Room-temperature, either a 0,05 - 0,3 M, or a 2 to 4 acetic medium. 2) The composition of indium-ferrocyanogen corresponds to formula  $\text{KIn}_5[\text{Fe}(\text{CN})_6]_4$  in the case of titration with potassium-ferrocyanogen and to  $\text{In}_4[\text{Fe}(\text{CN})_6]_3$  in the case of titration with sodium-ferrocyanogen. The minimum concentration of indium in the solution in which the titration proceeds satisfactorily, amounts to  $\sim 0.0005 \text{ mol/l}$ . 4) The molar solubility of indium- and potassium-ferrocyanogen - radiometrically determined - amounts to approximately  $2,0 \cdot 10^{-6}$ . Thus indium and zinc cannot be titrated

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SOV/156-58-2-26/48

Determination of Small Quantities of Indium in the Presence of Zinc

separately. 5) In the presence of 200-fold and larger quantities of zinc first of all it must be separated as hydroxide or by means of an ammonia excess. 6) Smaller quantities of indium ( $>6 \cdot 10^{-6}$  M) can be photometrically recorded after its extraction by chloroform-hydroxyquinoline solution at pH 3,5 also in the presence of 25 000-fold zinc-quantities. There are 4 figures, 5 tables, and 24 references, 7 of which are Soviet.

ASSOCIATION: Kafedra analiticheskoy khimii Moskovskogo gosudarstvennogo universiteta im. M. V. Lomonosova (Chair of Analytical Chemistry of the Moscow State University imeni M. V. Lomonosov)

SUBMITTED: October 23, 1957

Card 3/3

*Agasyan, P.K.*

32-2-36/60

AUTHORS: Lomakina, L. N. , Agasyan, P. K.

TITLE: A Combination Electrode for Potentiometrical Micro-Titration  
(Kombinirovannyy elektrod dlya potentsiometricheskogo mikro-titrovaniya)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 2, pp. 219 - 220  
(USSR)

ABSTRACT: The combination microelectrode according to B. I. Frid (reference 1) was improved by some modifications, e.g. an interposed layer of filter paper or a shift of the polished section is proposed for the purpose of preventing an etching of the polished section by crystal formation, (KCl or  $K_2SO_4$ ). The interspace is in this case filled up by agar-agar and a solution of KCl. By immersing the lower part of the electrode into the electrolyte an extended storage is secured. These modifications proved to be necessary in the case of titrating small amounts according to different potentiometric methods.

Card 1/2      There are 1 figure, and 1 reference, which is Slavic.

32-2-36/60

A Combination Electrode for Potentiometrical Micro-Titration

ASSOCIATION: Moscow State University imeni M. V. Lomonosov  
(Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova)

AVAILABLE: Library of Congress

1. Electrodes-Design 2. Titration-Equipment

Card 2/2

AUTHORS: Lomakina, L.N., Tarasevich, N.I., Agasyan, P.K. 32-3-6/52

TITLE: The Micropotentiometric Determination of Silver by Means of Triazoles  
(Mikropotentsiometricheskoye oprekeleniye serebra s pomoshch'yu triazolov)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 3, pp. 270-273 (USSR)

ABSTRACT: The present paper describes a method applying benzotriazole and bromobenzotriazole for the determination of microquantities of silver; the second-named reagent was found to be the better. For potentiometric titration a microelectrode recommended by Frid (Reference 3) in a slightly modified form was used. It was found that the potential jumps in the neutral medium are greater than in the acid medium, and that better titration results are obtained with nitric acid than with sulphuric- or acetic acid. By means of bromobenzotriazole it is possible to determine quantities of 0.01 mg/ml silver. The presence of copper, lead, nickel, cobalt, thallium and zinc does not disturb the determination in the medium of nitric acid, or in the presence of trilon B, whereas iodide-, cyanide-, and thiosulfate ions exercise a disturbing effect. In weakly ammoniacal solutions silver can be determined also in the presence of chlorine ions. There are several tables showing results obtained by investigation and some titration curves. There are 2 figures, 4 tables, and 5 references, 4 of which are Slavic.

Card 1/2

The Micropotentiometric Determination of Silver by Means of Triazoles 32-3-6/52

ASSOCIATION: Moscow State University imeni M.V.Lomonosov (Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova)

AVAILABLE: Library of Congress

1. Silver-Micropotentiometric determination
2. Benzotriazole-Applications
3. Bromobenzotriazole-Applications

Card 1/2

AGASYAN, P.K.

Potentiometric method for the determination of zinc and cadmium when both are present. Zav. lab. 24 no.5:532-534 '58. (MIRA 11#6)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.  
(Potentiometer) (Zinc—Analysis)  
(Cadmium—Analysis)

ALEKSEYEV, Vladimir Nikolayevich [deceased]; AGASYAN, P.K., red.;  
ZASUL'SKAYA, V.F., tekhn.red.

[Qualitative analysis] Kachestvennyi analiz. Moskva, Gos.  
nauchno-tekhn.izd-vo khim.lit-ry, 1959. 594 p. (MIRA 13:3)  
(Chemistry, Analytical--Qualitative)

AGASYAN, P.K.

Simple circuit of a device for coulometric titration and the determination of zinc by means of generated potassium ferricyanide. Vest.Mosk.un.Ser.mat., mekh., astron., fiz., khim. no. 6:156-163 '59. (MIRA 13:10)

1. Kafedra analiticheskoy khimii Moskovskogo universiteta.  
(Titration) (Zinc--Analysis)



LYALIKOV, Yuriy Sergeyevich; AGASYAN, P.K., retsenzent; LEONT'YEVA,  
K.D., red.; SHPAK, Ye.G., tekhn.red.

[Physicochemical methods of analysis] Fiziko-khimicheskie  
metody analiza. Izd.3. Moskva, Gos.nauchno-tekhn.izd-vo  
khim.lit-ry, 1960. 438 p. (MIRA 13:5)  
(Chemistry, Analytical)

KHAKIMOVA, V.K.; AGASYAN, P.K.

Electrometric methods for determining tellurium (IV). Uzb. khim.  
zhur. no.6:21-27 '60. (MIRA 14:1)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova i  
Institut khimii AN UzSSR.  
(Tellurium---Analysis)

KHAKIMOVA, V.K.; AGASYAN, P.K.

Use of electrolytically generated chlorine for the coulometric determination of ferrous oxide, Zav.lab. 27 no.3:263-266 '61.

(MIRA 14:3)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.  
(Iron oxide) (Chlorine)

DRAGUSHIN, Ion [Drăgusiu, I.] (Polyeshti, Rumyniya); AGASYAN, P.K. [translator]

New complexometric method for the determination of sulfates in the presence of calcium and magnesium. Zhur. anal. khim. 16 no. 4:404-406 J1-Ag '61. (MIRA 14:7)

(Sulfates) (Calcium) (Magnesium)

DRAGUSHIN, Ion [Draglsin, I.]; AGASYAN, P.K. [translator]

Rapid complexometric determination of barium sulfate in barites.  
Zhur.anal.khim. 16 no.5:611-612 S-O '61. (MIRA 14:9)

1. Chemical Combine Borzesti, Rumania.  
(Barium sulfate) (Barite) (Complexons)

LUR'YE, Yuliy Yul'yevich; AGASYAN, P.K., red.; ZAZUL'SKAYA, V.F.,  
tekhn. red.

[Manual on analytical chemistry] Spravochnik po analiticheskoi  
khimii. Moskva, Gos. nauchno-tekhn.izd-vo khim. lit-ry,  
1962. 287 p. (MIRA 15:4)  
(Chemistry, Analytical--Laboratory manuals)

AGASYAN, P.K.; KHAKIMOVA, V.K.

Use of certain amino acids as addends for Co (II) in its  
potentiometric titration by ferricyanide. Zav.lab. 28 no.10:  
1184-1188 ' 62. (MIRA 15:10)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.  
(Amino acids) (Cobalt--Analysis) (Potentiometric analysis)

AGASYAN, P.K.; NIKOLAYEVA, Ye.R.

Theoretical principles and interrelationship of the electrometric  
methods of chemical analysis (Survey). Zav.lab. 29 no.7:773-781  
'63. (MIRA 16:8)

(Electrochemical analysis)



AGASYAN, P.K., kand.geologo--mineralog.hauk

Coulometric analysis. Zhur.VKHO 9 no. 2:167-177 '64. (MIRA 17:9)

AGASYAN, P.K.; NIKOLAYEVA, Ye.R.; DEMINA, L.A.

Selection of an electrometric method of determining uranium by titration  
with vanadate and complexon. Zav.lab. 30 no.12:1434-1438 '64.  
(MIRA 18:1)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.

LEVINA, R.Ya.; GEMBITSKIY, P.A.; GUSEVA, L.P.; AGASYAN, P.K.

Cyclopropanes and cyclobutanes. Part 36: Evaluation of the reactivity  
of aryl cyclopropanes with the aid of Gammett equations. Zhur.ob.khim.  
34 no.1:146-151 Ja '64. (MIRA 17:3)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.

AGASYAN, P.K.; NIKOLAYEVA. Ye.R.; RYSKULBEKOVA, R.M.

Potentiometric titration of titanium (IV) with a solution of vanadium (II) sulfate. Zhur.anal.khim. 19 no.10:1219-1222 '64.

(MIRA 17:12)

1. M.V.Lomonosov Moscow State University.

STENINA, N.I.; AGASYAN, P.K.

Coulometric titration of iridium (IV) with electrogenerated iron  
(II) ferrocyanide. Zhur. anal. khim. 20 no.3:351-354 '65. (MIRA 18:5)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

LUR'YE, Yuliy Yul'yevich; AGASYAN, P.K., red.; ODERBERG, L.N.,  
red.

[Handbook of analytical chemistry] Spravochnik po analiti-  
cheskoi khimii. Izd.2., perer. i dop. Moskva, Khimiia,  
1965. 389 p. (MIRA 18:8)

AGASYAN, P.K.; KRYLOV, Yu.A.; LOBEV, A.I.

"Potentiometry" by S. Derdik, O. Tsigalov. Reviewed by P.K. Agasian, Yu.A. Krylov, A.I. Lobeov. Zhur. anal. khim. 20 no.6: 762 '65. (MIRA 18:7)

MASALOVICH, V.M.; NIKOLAYEVA, Ye.R.; AGASYAN, P.K.

Determination of phosphite in alkali metal by phosphites.  
Zav. lab. 31 no. 12:1431-1434 '65. (MIRA 19:1)

1. Ural'skiy nauchno-issledovatel'skiy khimicheskiy institut i  
Moskovskiy gosudarstvennyy universitet.



AGASYAN, V.

Our achievements in the effort for communist labor. Den. i kred.  
21 no.8:45-46 Ag '63. (MIRA 16:9)

1. Nachal'nik upravleniya gosudarstvennykh trudovykh sberegatel'nykh  
kass i gosudarstvennogo kredita Armyanskoy SSR.  
(Armenia---Savings banks) (Socialist competition)

GROSUL, Ya.S., red.; ABLOV, A.V., red.; GRINBERG, I.F., red.;  
AGAS'YEVA, N.A., red.; FAYERSHTEYN, M.G., red.;  
KASHUTKIN, R., red.

[From the history of science and technology; materials]  
Iz istorii nauki i tekhniki; materialy. Kishinev, Kartia  
moldoveniaske, 1963. 187 p. (MIRA 17:9)

1. Konferentsiya istorikov yestestvoznaniya i tekhniki  
Moldavii. 1st, Kishinev, 1962. 2. Prezident AN Moldavskoy  
SSR (for Grosul). 3. Kishinevskiy gosudarstvennyy univer-  
sitet (for Agas'yeva).

AGAS'YEVA, V. G.

"The polarographin behavior of metal ions in wateracetic acid and water-formic acid media." Min Higher Education USSR. Kishinev State U. Kishinev, 1955. (Dissertation for the Degree of Candidate in Chemical Sciences)

SO: Knizhnaya letopis' , No. 16, 1956

AUTHORS: Migal', P. K., Agas'yeva, V. G.

SOV/79-29-1-2/74

TITLE: The Polarographic Behavior of Metal Ions in the System  
Formic Acid - Water (Polyarograficheskoye povedeniye ionov  
metallov v sisteme murav'inaya kislota-voda)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 1, pp 3-7 (USSR)

ABSTRACT: The polarographic investigations in mixed solvents are of great theoretical interest as far as the various physico-chemical transformations exert an influence upon the electric reduction process of ions in the media to be investigated. The application of binary fluid systems as solvents in the polarographic reduction of metal ions is expected to furnish valuable investigation material for the determination of the physico-chemical nature of the medium under investigation, especially in the case a chemical reaction is assumed to take place between the components of the system. In this connection the influence of the composition of the solvent upon the characteristic polarographic features (especially the diffusion current) of the simple metal ions was investigated in order to use the data obtained for the determination of the characteristics of the composition diagrams. A. A. Glagoleva had

Card 1/3

The Polarographic Behavior of Metal Ions in  
the System Formic Acid - Water

SOV/79-29-1-2/74

already investigated viscosity, electric conductivity, surface tension, density and fusibility of the binary system  $\text{HCOOH} - \text{H}_2\text{O}$  (Refs 1-5). The analysis of the isothermal lines of the system permitted to determine the presence and the composition of two hydrates, i.e.  $\text{HCOOH} \cdot \text{H}_2\text{O}$  and  $\text{HCOOH} \cdot 2\text{H}_2\text{O}$

Already A. M. Zan'ko and F. A. Manusova (Ref 8) and other chemists (Refs 9-11) showed that the nature of the solvent exerts an important influence upon the polarographic diffusion current. The authors investigated the polarographic characteristic features of the ions  $\text{Cd}^{++}$ ,  $\text{Zn}^{++}$ ,  $\text{Pb}^{++}$  in the system  $\text{HCOOH}-\text{H}_2\text{O}$ . The six diagrams show the dependence of the dif-

fusion current on the concentration of the metal ions. The following diagrams were obtained: the constant of the diffusion current in its dependence on the composition of the solvent. It was shown that the variation of this constant depends upon the composition of the solvent and that it is accompanied by two maxima in the concentration range corresponding to the above-mentioned hydrates. This agrees with the curves of viscosity, electric conductivity and other

Card 2/3

The Polarographic Behavior of Metal Ions in  
the System Formic Acid - Water

SOV/79-29-1-2/74

properties determined in the system  $\text{HCOOH-H}_2\text{O}$ . There are 6  
figures, 1 table, and 12 references, 8 of which are Soviet.

ASSOCIATION: Kishinevskiy gosudarstvennyy universitet (Kishinev State  
University)

SUBMITTED: November 21, 1957

Card 3/3

AUTHOR: Migal', P. K., Agas'yeva, V. G. SOV/79-29-1-3/74

TITLE: The Polarographic Behavior of Metal Ions in the System Acetic Acid - Water (Polyarograficheskoye povedeniye ionov metallov v sisteme uksusnaya kislota-voda)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol. 29, Nr 1, pp 8-11 (USSR)

ABSTRACT: In the previous paper (Ref 1) the behavior of the ions  $\text{Cd}^{++}$ ,  $\text{Zn}^{++}$ ,  $\text{Pb}^{++}$  in the system formic acid - water was investigated. The present paper deals with the influence of the composition of the aqueous acetic solvent upon the polarographic diffusion current of simple metal ions. The physico-chemical properties of the binary system  $\text{CH}_3\text{COOH}-\text{H}_2\text{O}$  were investigated by A. A. Glagoleva, i.e. viscosity, conductivity, density, surface tension of this system. In this connection it was found that this system has an irrational character as far as on the isothermal lines of all investigated physico-chemical properties within a certain range of acid concentration the maxima and minima which point out to the formation of the hydrate complexes  $\text{CH}_3\text{COOH}\cdot\text{H}_2\text{O}$  and  $\text{CH}_3\text{COOH}\cdot 2\text{H}_2\text{O}$  were determined.

Card 1/2

The Polarographic Behavior of Metal Ions in  
the System Acetic Acid - Water

SOV/79-29-1-3/74

The polarographic characteristics of the ions  $\text{Cd}^{++}$ ,  $\text{Zn}^{++}$ ,  $\text{Ni}^{++}$  were investigated in the system  $\text{CH}_3\text{COOH}-\text{H}_2\text{O}$ . Diagrams were plotted concerning the relation between diffusion current and composition of the solvent. It was shown that the variation of the constant of diffusion current is accompanied by clear curvatures in a section of the acid concentration corresponding to the formation of the hydrate complexes. This variation depends upon the composition of the solvent. There are 6 figures, 1 table, and 6 Soviet references.

ASSOCIATION: Kishinevskiy gosudarstvennyy universitet (Kishinev State University)

SUBMITTED: October 21, 1957

Card 2/2



ANTONOV, E.

Visibility of railroad signals, p. 8. (MISHKIN, Vol. 3, no. 2, Apr. 1954, Belgrad, Yugoslavia)

SO: Monthly list of East European Accessions, (SEAL), LC, Vol. 4, no. 1 Jan. 1955, Uncl.

AGATE (VII), I.

"Office for Projects in the Framework of the Yugoslav Railway", . /01,  
(BULETIN, Vol. 10, No. 11, November 1954, Beograd, Yugoslavia)

SC: Monthly List of East European Accessions (TEMI), LC, Vol. 4, No. 3,  
March 1955, Uncl.

AGATITSKAYA, A.K., inzh.

Technological propaganda at the Ural Heavy Machinery Factory.  
Opyt rab. po tekhn. inform. i prop. no.4:29-30 '63. (MIRA 17:1)

1. Otdel tekhnicheskoy informatsii na "Uralskoy mashinostroyitel'noy zavode".

AGATONOVIC, Evgenije, Inz.

Clearness as an element of safe track crossing. Zeleznice  
Jug 29 no. 2:54-58 F '63.

CA 4011

1 Crystallographic study of tourmalines. T. N. Agalanova (T. G. Shvachenko State Univ., Kiev). *Doklady Akad. Nauk S.S.S.R.* 65, 207-9 (1949); cf. *C.A.* 42, 68c. — The tourmaline crystals of the Horakhevochno Mts. (200 sam- ples were examd.) are striking in their unusual variability of color, which may be uniform in the crystal, or highly variable in the same individual. Rose, pink, red, green, brown,

and black hues are abundant. The crystallographic description, combined with the pyroelectric examn. of the analogous and antilogous poles, shows no direct relation between staining and crystallographic orientation. They all are typical pegmatite Na-Li tourmalines. W. Fittel

AGATONOVA, V.V.

Late results of surgical treatment of postoperative hernias. Zdrav.  
Tadzh. 8 no. 2:22-24 '61. (MIRA 14:4)

1. Iz kafedry gosspital'noy khirurgii (zav. - prof. N.Z. Monakov)  
Stalinabadskogo medinstituta imeni Abuali ibni Sino i gorodskoy  
klinicheskoy bol'nitsy No. 1 (glav. vrach Kh.V.Vakhidov).  
(HERNIA)

AGATONOVIC, Borivoje, inz.

Telephone. Zeleznice Jug 17 no.9/10:55-58 '61.

(Yugoslavia--Railroads) (Telephone)

AGATONOVIC, E

AGATONOVIC, E. Unnecessary mediator. p. 286

Vol. 10, No. 8, Aug. 1954

ZELEZNICE

TECHNOLOGY

Beograd

So: MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, (EEAL), Vol. 4, No. 9,  
Sept. 1955



ACATONOVIC, E.

AGATONOVIC, E. Problems of skilled machinery and electrotechnical cadres in  
railroads. p. 284.

Vol. 11, No. 8, Aug. 1955.

ZELEZNICE

TECHNOLOGY

Beograd, Yugoslavia

So: East European Accessions, Vol. 5, May 1956

AGATOV, Aleksandr Andreyevich; IGOSHIN, M.G., red.; GOLDOVSKIY, S.Ye.,  
red.; BLAZHENKOVA, G.I., tekhn.red.

[Outboard motors] Podvesnye motory. Moskva, Izd-vo DOSAAF,  
1959. 190 p. (MIRA 13:2)

(Outboard motors)

AGATOV, Aleksandr Andreyevich; KONYUSHENKO, I.A., red.; MUKHINA, Ye.S.,  
tekhn. red.

[Light fuels and their mixtures for sports motor vehicles] Leg-  
kie topliva i ikh smesi dlia sportivnykh dvigatelei. Moskva,  
DOSAAF, 1962. 67 p. (MIRA 16:2)  
(Motor fuels—Antiknock and antiknock mixtures)

AGATOV, P.A.  
 ca

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1ST AND 2ND COPIES

PROCESSES AND PROPERTIES INDEX

Sterilization by means of decomposed fat. H. A. Kudryashov and P. A. Agatov. *Ginekologiya i Akusherstvo* 6, 1 (1935); *J. Contraception* 1, 139-1936. Fractionation of rancid fat in an attempt to discover the active substance producing sterility in mature female rats previously observed by K. (C. A. 27, 2243) indicated that the aldehydes and ketones form part of the active fraction. The concentrate had no effect when given orally but was very active subcutaneously. While originally it was necessary to feed 50 g. of the rancid fat for several days to produce sterility, injections of 0.1 g. of the active substance on the 6th day of pregnancy caused failure of implantation or resorption of the embryo. When administration of the concentration was discontinued, fertility rapidly returned.

Mamon Horn

Bancroft

AND SLA METALLURGICAL LITERATURE CLASSIFICATION

REGION SYMBOLS

COUNTRY AND YEAR

SUBJECT

REGION SYMBOLS  
 SUBJECT CMC JMS ISI

AGATOV, P.A.

Structural chemistry of proteins. II. A. Kizel, M. P. Anamenskaya and P. A. Agatov. Trudy Lab. Isucheniyu Belka i Belkogo Obmena Organism 9, 93-122(1936); Chem. Zvezd. 1939, I, 141; cf. C. A. 27, 516. -- As a continuation of the earlier work on the methoxylation of glycine from soybeans, the same expts. were carried out with edestin from hemp and legumes and with vicelin from peas. It was demonstrated that by treating these proteins with HCl gas in MeOH methoxylation is complete in 1 hr. In addn. to esterification, a series of side reactions took place which consisted chiefly in the splitting off of loosely bound portions of the mol. In particular, there was a decrease in the N content present as  $\text{NH}_2$ , amino acids and tryptophan. The combining power of the OMe and HCl groups together with a consideration of the acid groups present as detd. by titration permits conclusions to be drawn regarding the constitution of the proteins studied. It is thought that the portions of the protein mol. which are not split off are united by betaine-like linkages. Edestin which had been benzoylated by the method of Baumann was further subjected to methoxylation. It was shown that the introduction of these 2 groups took place independently of one another. W. A. Moore

TITLE AND ORDER		PROCESS AND PROPERTIES	
AGATOV, P.A.			
<p>Acidic and basic groups in legumin. P. A. Agatov.  <i>Biokhimiya</i> 4, 1-9(1939); cf. C. A. 24, 3416. The            acidic groupings in legumin are in salt-like combination            with an equal no. of basic groupings; hence, fixation of  <math>NH_3</math> does not occur. In the hydrochloride, however,            some acidic groups are liberated, and union with <math>NH_3</math>            follows. H. Cohen</p>			
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>			
<p>RECORD WITH ONLY ONE</p>			
<p>RECORD WITH ONLY ONE</p>			

AGATOV, P.		1ST AND 2ND GRADERS		PROCESSES AND PROCEDURES	
<p><i>(Handwritten: CA)</i></p>		<p style="text-align: right;"><i>(Handwritten: 11P)</i></p>			
<p><b>Effect of water extracts of leaves of tobacco on acyl derivatives of the protein of tobacco mosaic virus. P. Agatov. Compl. rend. acad. sci. U. R. S. S., 33, 170-1 (1941) (in English).--</b> Freshly cut leaves of tobacco were ground with quartz sand, and the liquid was pressed through gauze. The mash was extg. with water and passed through filter paper. To 18 cc. of a 1% soln. of benzoylized protein of the virus 2 cc. of the leaf aq. ext. thus obtained was added. As a control the same benzoylized protein mixed with boiled ext. was used. Both solns. were allowed to stand at 25° for 4 days. A parallel test under similar conditions was made with the acetyl deriv. of the virus protein. Neither the benzoyl nor the acetyl groups split off from the resp. derivs. of the virus protein. Both in the control and test the acetyl and benzoyl radicals could be detected only after preliminary hydrolysis. Maurice M. Rath</p>					
<div style="display: flex; justify-content: space-between;"> <span>ASR-SLA METALLURGICAL LITERATURE CLASSIFICATION</span> <span>RECORD NUMBER</span> </div>					
<div style="display: flex; justify-content: space-between;"> <span>ISSUED BY</span> <span>APPROVED FOR USE</span> </div>					
<div style="display: flex; justify-content: space-between;"> <span>DATE</span> <span>FILED IN</span> </div>					

COMMON ELEMENTS

OPEN

MATERIALS INDEX

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

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COMMON VARIABLES INDEX

AGATOV, P.

CA

Comparative analysis of the proteins of sound tomatoes and those affected with tobacco mosaic. P. Agatov. *Biokhimiya* 6, 37-40 (in German, 40) (1941).—The proteins of tomatoes, both affected and unaffected, are similar in their P content. The amino acid content of the proteins is similar also, except for arginine and proline (+ hydroxyproline) of which there is less in affected tomatoes. The latter contain more purine bases than sound tomatoes.

T. Laanes

MICROBIOLOGICAL INST. OF THE ACAD. OF SCIENCES OF THE USSR,

MOSCOW

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ASB-ILA METALLURGICAL LITERATURE CLASSIFICATION

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AGATOV, P.  
CA

Acetylated derivatives of the virus protein of tobacco mosaic. P. Agatov. *Biokhimiya* 6, 269-75(1941).— Virulence is retained in the tobacco mosaic virus contg. 1.60% Ac groups. There is no correlation between virulence and free amino groups, the OH groups of tyrosine, the amidic group of arginine or the glyoxaline ring of histidine. H. Priestley

110

Inst. of Microbiology of the Acad. of Sciences of the USSR, Lab. of plant viruses, Moscow

ASH-51A METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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AGAJOV, P.  
CA

110

Reproduction of tobacco mosaic virus from its acyl derivatives. P. Agajov. *Compt. rend. acad. sci. U. R. S. S.* 28, 139-40(1945)(in English).—Tobacco plants were inoculated with the invariable protein of the virus and its Ac and Ps derivs. Two months later identical preps. were obtained from all plants; this indicates that a slight modification of the virus mol. due to these groups has no influence upon the formation or form of the new virus.  
J. R. Webster

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

AGATOV, P. A.

AGATOV, P. A. "Reproduction of Tobacco Mosaic Virus from its Acyl Derivatives,"

Comptes Rendus (Doklady) de l'Academie des Sciences de L'URSS,

vol. 38, no. 4, 1943, pp. 151-152. 511 P444

SO: SIRA, SI, 90-53, 15 Dec. 1953

1ST AND 2ND ORDERS  
PROCESSES AND PROPERTIES INDEX

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HOATOV, P.  
BA

Effect of Iodine on the activity of tobacco mosaic virus.  
P. Agatov (Moscow Pedagogical Inst.). *Compt. rend. acad. sci. U.R.S.S.* 49, 523-5(1945). —At pH 5.5-6.0 I had slight effect on the activity of virus but caused greater reduction in activity at a higher or lower pH, with 100% inactivation at 4.5 and 8.0. When I was allowed to react at pH 4.5, 5.0, and 8.3, the amt. of I assocd. with the virus protein was greatest at 4.5 and least at 5.9. The amt. of I spent on protein oxidation was greatest at pH 8.3. Inactivation of the virus at pH values below 5.0 probably takes place through the assocn. of I with the active protein groups by tautomeric rearrangement of double bonds. At pH values above 5.0 inactivation occurs by the oxidizing action of I. I. T. Sullivan

COMMON ELEMENTS  
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ASO-SLA METALLURGICAL LITERATURE CLASSIFICATION

STANDARD NO.	STANDARD NO. ONE	STANDARD NO. TWO	STANDARD NO. THREE	STANDARD NO. FOUR	STANDARD NO. FIVE	STANDARD NO. SIX	STANDARD NO. SEVEN	STANDARD NO. EIGHT	STANDARD NO. NINE	STANDARD NO. TEN	STANDARD NO. ELEVEN	STANDARD NO. TWELVE	STANDARD NO. THIRTEEN	STANDARD NO. FOURTEEN	STANDARD NO. FIFTEEN	STANDARD NO. SIXTEEN	STANDARD NO. SEVENTEEN	STANDARD NO. EIGHTEEN	STANDARD NO. NINETEEN	STANDARD NO. TWENTY	STANDARD NO. TWENTY-ONE	STANDARD NO. TWENTY-TWO	STANDARD NO. TWENTY-THREE	STANDARD NO. TWENTY-FOUR	STANDARD NO. TWENTY-FIVE	STANDARD NO. TWENTY-SIX	STANDARD NO. TWENTY-SEVEN	STANDARD NO. TWENTY-EIGHT	STANDARD NO. TWENTY-NINE	STANDARD NO. THIRTY

CA

11 D

Alkyl derivatives of the protein of tobacco mosaic virus.  
P. Agatov. *Doklady Akad. Nauk S.S.S.R.* 58, 429-30  
(1947). Tobacco mosaic virus protein in phosphate-sulfate  
buffer at pH 4 treated with Et diazoacetate at 3-5° loses its  
ability to cause necrosis of *Nicotiana glutinosa*. Dialysis of  
the product for several days against H<sub>2</sub>O restores the ac-  
tivity. The nature of the attacked groups is not clear.  
G. M. Kosolapoff

USSR/Medicine - Fungi  
Medicine - Albumin

Oct 1947

"Alkyl Producing Albumin of the Tobacco Mosaic Virus," P. Agatov, Inst Microbiol, Acad Sci USSR, 2 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVIII, No 3

For a long time scientists have had trouble determining the part that acid groups play in the infectious nature of tobacco mosaic. Agatov describes experiments and data obtained in his work on this problem. Submitted by Academician B. L. Isachenko, 28 May 1947.

49760

BR  
AGATOV, P.A.

Acidic and basic properties of zein. P. A. Agatov. (*Doklady*  
1948, 14, 70--73). --Formation of salts with gaseous HCl in benzene  
and with gaseous NH<sub>3</sub> in benzene was used to determine the number  
of basic and acidic groups in the zein mol. Taking the mol. wt. as  
19,400 the number of acidic groups is 11 and of basic groups 8.  
D. H. SMYTH.

AGATOV, P.N. 11-C

1ST AND 2ND ORDERS PROCESSES AND PROPERTIES INDEX

Biologically active group of gramicidin C. M. P. Znamenskaya, P. A. Agatov, and A. N. Belozerskil. *Doklady Akad. Nauk S.S.S.R.* 50, 95-8(1948).—The biol. activity of gramicidin C depends on the free  $\text{NH}_2$  group and is not affected by salt formation with nucleic acids; either acetylation or benzylation destroys the biol. activity, as does deamination. The salts were prepd. by mixing the soln. of gramicidin-HCl in aq. alc. with Na salts of ribo- or thymo-nucleic acids. The biol. activity was tested on *S. aureus*. Benzylation was done in pyridine soln. and gave 2 product with 17.85% Bz groups (benzylation in NaOH gave but 8.6% Bz). Acetylation was done in pyridine with  $\text{Ac}_2\text{O}$  and the product contained 7.48% Ac. Deamination was done by  $\text{NaNH}_2$  in AcOH and the deaminated product, m. 194-6°, had 12.12% N. Mere treatment of gramicidin with AcOH, pyridine, or 7% NaOH failed to affect the activity. The activity was checked on *S. aureus* and *E. coli*, with similar results. The acylated products had only 0.31-0.37%  $\text{NH}_2$  group (Van Slyke), the deaminated product 0.42%. G. M. Kosolupoff

ASAC-SLA METALLURGICAL LITERATURE CLASSIFICATION

RESONI DIVISION

RESONI DIVISION



USSR/Medicine - Albumin  
Chemistry - Zein

Jan/Feb 49

"Acid and Basic Properties of Zein," P. A. Agatov,  
Inst of Microbiol Acad Sci USSR, Moscow, 4 pp

"Biokhimiya" Vol XIV, No 1

Investigates acid and basic properties of zein, a  
maize albumin soluble in alcohol. Salt formation of  
zein with gaseous HCl in benzene enables all its  
basic groups to be studied. Similarly, its salt  
formation with  $\text{NH}_3$  enables a number of its excess  
acid groups to be studied. Minimum zein molecule  
(M 19,400) contains 11 acid groups, three of which  
45/49157

USSR/Medicine - Albumin (Contd) Jan/Feb 49

are excessive and eight neutralized by an equivalent  
number of base groups. Total number of acid- and  
alkaline-combining groups in zein molecule is 19.  
Submitted 3 Jul 48.

45/49157

Oxidation-reduction potential of the virulent group of the tobacco mosaic virus. P. A. Agator (Microbiol. Inst., Acad. Sci. U.S.S.R.). *Doklady Akad. Nauk S.S.S.R.* 72, 145-8 (1950).—To 5 ml. aq. soln. contg. 5 mg. virus prepn. were added various reagents in 5 ml. 0.066 M phosphate buffer at pH 7.0; after 4 and 24 hrs. samples were tested for virus activity on *Nicotiana glutinosa* leaves. The reagents used were: 3% Na-Hg, NaS, Na<sub>2</sub>S, O<sub>2</sub>, K ferricyanide, KOCN, FeCl<sub>3</sub>, KClO<sub>3</sub>, H<sub>2</sub>O<sub>2</sub>. Reagents with oxidation-reduction potentials up to 0.7 have no action, those with higher potentials inactivate the virus. Hence, the active group has its oxidation-reduction potential at about 0.75-0.8 v., and is stable to reducing agents. In this, it differs from many other biologically active materials (urase, papain, etc.). Its high potential of oxidations explains its stability in the organism. G. M. K.

AGATOV, P. A.

AGATOV, P. A. -- "Change of Protein Substances in the Growth of a Tomato, Affected by a Tobacco Mosaic Virus, and the Role of Chemically Active Groups of the Tobacco Mosaic Virus During Its Virulent Activity Stage." Sub 10 Jun 52, Inst of Microbiology, Acad Sci USSR (Dissertation for the Degree of Candidate in Biological Sciences).

SO: Vechernaya Moskva January-December 1952

FA 23919  
USSR/Biology - Plant Diseases

Oct 52

"Changes in the Proteins of Tobacco Plants Infected With the Tobacco Mosaic Virus, and the Role Which Chemically Active Groups of This Virus Play in Bringing About Its Virulence," P. A. Agatov, Inst Microbiol, Dept of Biol Sci, Acad Sci USSR

"Vest Ak Nauk SSSR" Vol 22, No 10, p 106

Tobacco mosaic virus could be inactivated by esterification with diazoacetic acid ester, showing that acidic groups participate in bringing about

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the virulence of the virus. The oxidation-reduction potential of the active groups was found to be 0.75-0.80 v. In an alk medium, I oxidizes the virus; in an acidic medium, I is added to its active (virulent) groups.

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AGATOV, P.A., KAZANSKAYA, T.B.,

Physiology of Actinomyces streptomycini and its relation to streptomycin production. Report No.3: Dynamics of nitrogen-containing substances in the development of Actinomyces streptomycini on a medium containing corn extract [with summary in English]. Antibiotiki, 3 no.3:28-30 My-Je '58 (MIRA 11:7)

1. Institut mikrobiologii AN SSSR.

(ACTINOMYCES, culture,

streptomycini, nitrogen-containing substances in cultures containing corn extract (Rus))

(NITROGEN, metabolism,

in Actinomyces streptomycini cultures containing corn extract in medium (Rus))

AGATOV, P.A.; KAZANSKAYA, T.B.

Relation of physiology to streptomycin synthesis in *Actinomyces streptomycini*; dynamics of nitrogen-containing substances in the development of *Actinomyces streptomycini* on a synthetic medium. Antibiotiki 3 no.5:31-33 S-O '58. (MIRA 12:11)

1. Institut mikrobiologii AN SSSR.

(ACTINOMYCETES, culture,

growth of *Actinomyces streptomycini* in nitrogen containing synthetic media (Rus))

(NITROGEN, eff.

on *Actinomyces streptomycini* growth in synthetic media (Rus))

AGATOV, P.A.

Role of chemically active groups of the tobacco mosaic virus in its virulent activity. Trudy Inst. mikrobiol. no.5:265-281 '58  
(MIRA 11:6)

1. Institut mikrobiologii AN SSSR.  
(VIRUSES,

tobacco mosaic, role of chem.-active groups in virulence review (Rus))

AGATOV, P.A.; FEDOROVA, I.M.; GALANINA, L.A.

Dynamics of substances containing phosphorus in the mycelium of *Actinomyces violaceus* as related to its capacity for forming an antibiotic substance. Trudy Inst. mikrobiol. no. 6:245-250 '59. (MIRA 13:10)

1. Institut mikrobiologii AN SSSR.  
(ACTINOMYCES VIOLACEUS) (PHOSPHORUS METABOLISM)



AGATOV, P.A.; KAZANSKAYA, T.B.

Use of vegetable raw material in streptomycin production. Mikro-  
biologiya 28 no.6:858-862 N-D '59. (MIRA 13:4)

1. Institut mikrobiologii AN SSSR.  
(STREPTOMYCIN chem.)

17(2,12)

AUTHORS: Galanina, L. A., Agatov, P. A.

SOV/20-127-2-61/70

TITLE: The Effect of Some Chemical Compounds on the Formation of Streptomycin by the Strain LS-1 of Actinomyces streptomycini

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 2, pp 450-452 (USSR)

ABSTRACT: Complex culture media widely used in the industrial production of streptomycin like soybean flour are not suitable for the thorough investigation of the metabolism of the producer or the mechanism of antibiotic formation, because they contain complicated organic substances. On the other hand it was shown by the rechecking of the allegedly good synthetic culture media (Ref 3) that the strain mentioned in the title does not grow well on them and produces only little streptomycin. The authors repeated the experiments of V. A. Severin (Ref 1) and I. H. Ferguson (Ref 5). The culture media of these two research workers contain soybean flour. The Ferguson method turned out to be the best. The authors believe, however, that the transfer of the seed bred on the complex culture medium to the synthetic medium to be investigated is not quite right. They used therefore

Card 1/3

The Effect of Some Chemical Compounds on the Formation of Streptomycin by the Strain LS-1 of *Actinomyces streptomycini* SOV/20-127-2-61/70

in both cases the same medium. Amino acids were added to the Ferguson culture medium (calculated with respect to 0.03% nitrogen content in the culture medium) (Table 1). This shows that the streptomycin formation is only inconsiderable without amino acids. The addition of amino acids does not only increase the growth of the mycelium, but also the formation of the antibiotic. The last process is differently stimulated by the monoamino acid (alanine on the one, and by basic amino acids (arginine, histidine, lysine) on the other hand, in spite of a rather equal growth promotion. Ammonium nitrate was replaced by ammonium sulphate since it was proved that it is rather probable that the oxidized form of the nitrogen does not influence at all the two mentioned processes. Since inositol (the nucleus of the streptidine part of the antibiotic) influences in general considerably the development of organisms (Ref 2) it was also added to the medium beside the amino acids. Table 1 shows that inositol (10 mg per 100 ml medium) does not change the mycelium growth but increases the streptomycin yield by 40-45%. Thus a culture medium was found equal to that with soybean flour. On the strength of considerations concerning the

Card 2/3

The Effect of Some Chemical Compounds on the Formation of Streptomycin by the Strain LS-1 of *Actinomyces streptomycini* SOV/20-127-2-61/70

methyl groups of the streptobios amine part of the streptomycin molecule, and the experiments with respect to it the authors conclude that the methylation process is one of the limiting factors of the streptomycin formation in the mycelium. The methylation process is probably stimulated by an addition of vitamin B<sub>12</sub>. Methicnine increases this effect since the source of the methyl groups in the mycelium is apparently limited. There are 1 table and 5 references, 3 of which are Soviet.

ASSOCIATION: Institut mikrobiologii Akademii nauk SSSR  
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Card 3/3

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"Participation of Certain Chemical Compounds in Streptomycin  
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1. The Faculty of Biology and Soil Science, State University, Moscow.  
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(PROTEINS)

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